Comparisons of Job Characteristics

Focus Occupation: Environmental Scientists and Specialists, Including Health (19-2041)
Associated Occupation: Hydrologists (19-2043)

Compare Knowledge
Compare Skills
Compare Abilities
Compare Detailed Work Activities
Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 90

Focus Occupation: Environmental Scientists and Specialists, Including Health (19-2041)
Associated Occupation: Hydrologists (19-2043)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Mathematics	9.2	17.7	15.5	<	Expanded education and/or training may be required
Engineering and Technology	5.7	17.4	12.1	<<	Extensive education and/or training may be required
Geography	3.9	16.7	12.7	<<	Extensive education and/or training may be required
Physics	4.3	15.7	10.5	<<	Extensive education and/or training may be required
Chemistry	4.8	15.6	14.9	0	Current knowledge level may be sufficient
Biology	3.7	13.6	14.8	0	Current knowledge level may be sufficient
Design	5.2	12.6	8.4	<<	Extensive education and/or training may be required
Law and Government	5.9	11.3	13.5	>	Current knowledge level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 94

Focus Occupation: Environmental Scientists and Specialists, Including Health (19-2041)
Associated Occupation: Hydrologists (19-2043)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Critical Thinking	10.8	14.5	14.1	0	Current skill level may be sufficient
Science	4.5	13.0	15.7	>	Skill level is likely sufficient
Mathematics	6.2	12.8	12.2	0	Current skill level may be sufficient
Programming	2.2	6.5	6.3	0	Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 98

Focus Occupation: Environmental Scientists and Specialists, Including Health (19-2041)
Associated Occupation: Hydrologists (19-2043)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Inductive Reasoning	10.2	14.6	16.5	>	Current ability level is likely sufficient
Written Comprehension	11.0	14.6	16.3	>	Current ability level is likely sufficient
Written Expression	9.8	14.1	14.4	0	Current ability level may be sufficient
Problem Sensitivity	11.1	13.9	15.8	>	Current ability level is likely sufficient
Mathematical Reasoning	6.3	13.8	12.2	<	Some improvement in abilities may be required
Deductive Reasoning	10.6	13.4	15.1	>	Current ability level is likely sufficient
Flexibility of Closure	7.8	12.0	11.6	0	Current ability level may be sufficient
Originality	7.6	11.5	10.8	0	Current ability level may be sufficient
Fluency of Ideas	7.6	11.3	11.5	0	Current ability level may be sufficient
Category Flexibility	9.0	11.2	13.0	>	Current ability level is likely sufficient
Number Facility	6.3	10.8	11.9	>	Current ability level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 87

Focus Occupation: Environmental Scientists and Specialists, Including Health (19-2041)
Associated Occupation: Hydrologists (19-2043)

Work Activities	Exclusivity of Activity
Adhere to safety procedures	12
Advise clients or customers	19
Advise governmental or industrial personnel	28
Analyze ecosystem data	69
Analyze scientific research data or investigative findings	27
Classify plants, animals, or other natural phenomena	69
Collect geographic or physical data	81
Collect scientific or technical data	30
Collect statistical data	47
Communicate technical information	4
Conduct field research or investigative studies	52
Conduct laboratory research or experiments	57
Confer with research personnel	50

Confer with scientists	54
Develop or maintain databases	30
Develop plans for programs or projects	31
Develop policies, procedures, methods, or standards	21
Develop scientific or mathematical hypotheses, theories, or laws	62
Develop tables depicting data	33
Direct and coordinate scientific research or investigative studies	27
Direct implementation of new procedures, policies, or programs	60
Explain complex mathematical information	30
Make decisions	24
Make presentations	13
Monitor atmospheric or meteorological processes	89
Plan scientific research or investigative studies	48
Prepare environmental impact or related environmental reports	81
Prepare reports	8
Prepare technical reports or related documentation	22
Provide expert testimony on research results	66
Read maps	42
Record test results, test procedures, or inspection data	48
Resolve engineering or science problems	46
Understand properties of gases or liquids	78
Use building or land use regulations	65
Use chemical testing or analysis procedures	54
Use computers to enter, access or retrieve data	3
Use knowledge of investigation techniques	16
Use library or online Internet research techniques	21
Use mathematical or statistical methods to identify or analyze problems	30
Use physical science research techniques	68
Use quantitative research methods	35
Use relational database software	26
Use scientific research methodology	21
Use spreadsheet software	18
Use word processing or desktop publishing software	17
Write scholarly or technical research papers	36

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 82

Focus Occupation: Environmental Scientists and Specialists, Including Health (19-2041)
Associated Occupation: Hydrologists (19-2043)

Tools and Technologies	Exclusivity
Audio and visual equipment	4
Business function specific software	1

Cameras	2
Chemical evaluation instruments and supplies	10
Computer printers	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Development software	4
Electrochemical measuring instruments and accessories	9
Hydrological instruments	31
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Light and wave generating and measuring equipment	4
Liquid and gas flow measuring and observing instruments	15
Liquid and solid and elemental analyzers	19
Network applications software	1
Personal communication devices	2
Sampling equipment	12
Soil measuring equipment	20
Sound generating and measuring equipment	19
Spectroscopic equipment	10
Water treatment and supply equipment	21

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.